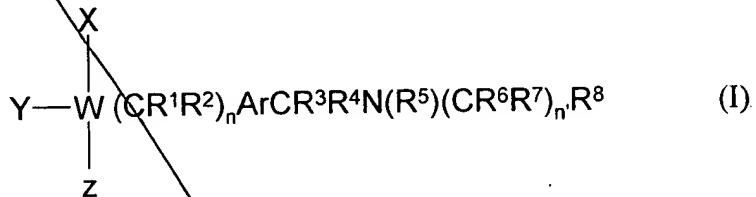


AMENDMENT

In the Claims:

Please replace the presently pending claims with the following claims:

- ✓ 1. (Five times amended) A compound according to Formula I:



wherein, W is a nitrogen atom and Y is void or, W is a carbon atom and Y=H;

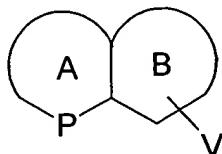
Suh
F1
R¹ to R⁷ may be the same or different and are independently hydrogen or straight, branched or cyclic C₁₋₆ alkyl;

R⁸ is an optionally substituted heterocyclic group or an optionally substituted aromatic group

Ar is an aromatic or heteroaromatic ring optionally substituted at single or multiple, non-linking positions with electron-donating or withdrawing groups;

n and n' are independently, 0-2;

X is a group of the formula:



wherein, Ring A is an optionally substituted, saturated or unsaturated 5 or 6-membered ring, and P is an optionally substituted nitrogen atom and wherein any heteroatom in ring A or B is N;

wherein Ring B is an optionally substituted 5 to 7-membered ring;

wherein Ring A or Ring B is bound to group W from any position through group V;

wherein V is a chemical bond or V is a (CH₂)_{n''} group (where n''= 1-2), or V is a C=O group; and

wherein Z is selected from the group consisting of: a hydrogen atom; an optionally substituted C₁₋₆ alkyl group; an optionally substituted aromatic or heterocyclic group; a C₁₋₆ alkyl

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group substituted with an optionally substituted aromatic or heterocyclic group; an optionally substituted amino group; an optionally substituted C₁₋₆ alkylamino or C₃₋₇ cycloalkylamino group; a sulfonyl group and an optionally substituted carbonyl group; or

the pharmaceutically acceptable acid addition salts thereof;

including said compound in any stereoisomeric form and any mixture of stereoisomeric forms thereof;

wherein Ring B is selected from the group consisting of: benzene and a 5 to 7-membered cycloalkyl ring; and the optionally substituted forms thereof, or

Ring B is selected from the group consisting of: cyclopentyl; cyclohexyl; cycloheptyl; cyclopentenyl; cyclohexenyl; and cycloheptenyl and the optionally substituted forms thereof.

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F/

2. The compound of claim 1, wherein Ring A is selected from the group consisting of: pyridine; pyrimidine; pyrazine; pyridazine; triazine; piperidine; piperazine; imidazole; pyrazole; and triazole and the optionally substituted forms thereof.

Please cancel claim 3.

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3. The compound of claim 1, wherein Ring B is selected from the group consisting of: cyclopentyl; cyclohexyl; cycloheptyl; cyclopentenyl; cyclohexenyl; and cycloheptenyl and the optionally substituted forms thereof.

4.
4. The compound of claim 1, wherein Ring A and Ring B together are optionally substituted dihydroquinoline or tetrahydroquinoline.

5.
5. The compound of claim 1, wherein Ring A and Ring B are independently optionally substituted with a substituent selected from the group consisting of: halogen; nitro; cyano; carboxylic acid; an optionally substituted alkyl, alkenyl or cycloalkyl group; an optionally substituted hydroxyl group; an optionally substituted thiol group; an optionally substituted amino or acyl group; an optionally substituted carboxylate, carboxamide or sulfonamide group; and an optionally substituted aromatic or heterocyclic group.

~~12.~~ (Twice amended) The compound of claim 1 wherein said optional substituent in Ring A or Ring B is independently an optionally substituted aralkyl or heterocycloalkyl, wherein said heterocycloalkyl is a 5 or 6 membered ring containing 1-4 heteroatoms.

~~13.~~ The compound of claim 12, wherein said optionally substituted aralkyl or heterocycloalkyl is selected from the group consisting of: phenylC₁₋₄alkyl; phenylmethyl (benzyl); phenethyl; pyridinylmethyl; and pyridinylethyl.

~~14. 51.~~ The compound of claim 1, wherein Z is an optionally substituted C₁₋₆alkyl group, wherein said C₁₋₆alkyl group is substituted with one or more substituents selected from the group consisting of: halogen; nitro; cyano; carboxylic acid; an optionally substituted alkyl, alkenyl or cycloalkyl group; an optionally substituted hydroxyl group; an optionally substituted thiol group; an optionally substituted amino or acyl group; an optionally substituted carboxylate, carboxamide or sulfonamide group; and an optionally substituted aromatic or heterocyclic group.

~~15. 55.~~ The compound of claim 1, wherein Z is an optionally substituted aromatic or heterocyclic group or a C₁₋₆alkyl group optionally substituted with an optionally substituted aromatic or heterocyclic group.

~~16. 56.~~ (Amended) The compound of claim 55, wherein said optionally substituted aromatic group is substituted with a substituent selected from the group consisting of: benzene; naphthalene; dihydronaphthalene; and tetrahydronaphthalene; and wherein said optionally substituted heterocyclic group is a 5 to 6-membered saturated, partially saturated, or aromatic heterocyclic ring containing 1 to 4 heteroatoms selected from nitrogen, oxygen and sulfur.

~~17. 57.~~ The compound of claim 56, wherein said heterocyclic group is selected from the group consisting of: pyridine, quinoline, isoquinoline, imidazole, benzimidazole, azabenzimidazole, benzotriazole, furan, benzofuran, thiazole, benzothiazole, oxazole, benzoxazole, pyrrole, indole, indoline, indazole, pyrrolidine, pyrrolidone, pyrrolidine, piperidine, piperazine, tetrahydroquinoline, tetrahydroisoquinoline, pyrazole, thiophene, isoxazole, isothiazole, triazole, tetrazole, oxadiazole, thiadiazole, morpholine, thiamorpholine, pyrazolidine,

Sub
f1 imidazolidine, imidazoline, tetrahydropyran, dihydropyran, benzopyran, dioxane, dithiane, tetrahydrofuran, tetrahydrothiophene, dihydrofuran, and dihydrothiophene.

Sub
f1 58. (Twice amended) The compound of claim 57, wherein said heterocyclic group contains nitrogen or sulfur heteroatoms; and wherein said nitrogen or sulfur heteroatoms are optionally in the form of oxides.

E/P 98. (Twice amended) A compound selected from the group consisting of:

- (a) AMD8862, N-(2-pyridinylmethyl)-N'-[2-[(1*H*-imidazol-4-ylmethyl)amino]ethyl]-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (b) AMD8887, N-(2-pyridinylmethyl)-N'-[2-[(1*H*-imidazol-2-ylmethyl)amino]ethyl]-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (c) AMD8816, N-(2-pyridinylmethyl)-N'-[2-(phenylureido)ethyl]-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (d) AMD8737, N-(2-pyridinylmethyl)-N'-[*N*''-(n-butyl)carboxamido]methyl]-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (e) AMD8739, N-(2-pyridinylmethyl)-N'-(carboxamidomethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (f) AMD8752, N-(2-pyridinylmethyl)-N'-[*N*''-phenyl)carboxamidomethyl]-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (g) AMD8765, N-(2-pyridinylmethyl)-N'-(carboxymethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (h) AMD8715, N-(2-pyridinylmethyl)-N'-(phenylmethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (i) AMD8907, N-(2-pyridinylmethyl)-N'-(1*H*-benzimidazol-2-ylmethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (j) AMD8927, N-(2-pyridinylmethyl)-N'-(5,6-dimethyl-1*H*-benzimidazol-2-ylmethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine (hydrobromide salt);
- (k) AMD8926, N-(2-pyridinylmethyl)-N'-(5-nitro-1*H*-benzimidazol-2-ylmethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (l) AMD8929, N-(2-pyridinylmethyl)-N'-[*(1H)*-5-azabenzimidazol-2-ylmethyl]-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;

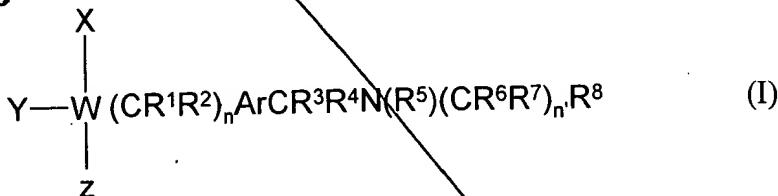
- E/S*
- Sv*
- F1*
- (m) AMD8931, N-(2-pyridinylmethyl)-N-(4-phenyl-1*H*-imidazol-2-ylmethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (n) AMD8783, N-(2-pyridinylmethyl)-N'-[2-(2-pyridinyl)ethyl]-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (o) AMD8764, N-(2-pyridinylmethyl)-N'-(2-benzoxazolyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (p) AMD8780, N-(2-pyridinylmethyl)-N'-(*trans*-2-aminocyclohexyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (q) AMD8818, N-(2-pyridinylmethyl)-N'-(2-phenylethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (r) AMD8829, N-(2-pyridinylmethyl)-N'-(3-phenylpropyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (s) AMD8839, N-(2-pyridinylmethyl)-N'-(*trans*-2-aminocyclopentyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (t) AMD8726, N-[[4-[(2-pyridinylmethyl)amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-glycinamide;
- (u) AMD8738, N-[[4-[(2-pyridinylmethyl)amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-(L)-alaninamide;
- (v) AMD8749, N-[[4-[(2-pyridinylmethyl)amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-(L)-aspartamide;
- (w) AMD8750, N-[[4-[(2-pyridinylmethyl)amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-pyrazinamide;
- (x) AMD8740, N-[[4-[(2-pyridinylmethyl)amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-(L)-prolinamide;
- (y) AMD8741, N-[[4-[(2-pyridinylmethyl)amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-(L)-lysinamide;
- (z) AMD8724, N-[[4-[(2-pyridinylmethyl)amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-benzamide;
- (aa) AMD8725, N-[[4-[(2-pyridinylmethyl)amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-picolinamide;
- (bb) AMD8713, N'-Benzyl-N-[[4-[(2-pyridinylmethyl) amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-urea;

- E/S*
- Suh*
- F*
- (cc) AMD8712, N'-phenyl-N-[[4-[(2-pyridinylmethyl) amino]methyl]phenyl]methyl]-N-(5,6,7,8-tetrahydro-8-quinolinyl)-urea;
- (dd) AMD8716, N-(6,7,8,9-tetrahydro-5H-cyclohepta[bacteriapyridin-9-yl])-4-[(2-pyridinylmethyl)amino]methyl]benzamide;
- (ee) AMD8717, N-(5,6,7,8-tetrahydro-8-quinolinyl)-4-[(2-pyridinylmethyl)amino]methyl]benzamide;
- (ff) AMD8634, N,N'-bis(2-pyridinylmethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (gg) AMD8774, N,N'-bis(2-pyridinylmethyl)-N'-(6,7,8,9-tetrahydro-5H-cyclohepta[bacteriapyridin-9-yl])-1,4-benzenedimethanamine;
- (hh) AMD8775, N,N'-bis(2-pyridinylmethyl)-N'-(6,7-dihydro-5H-cyclopenta[bacteriapyridin-7-yl])-1,4-benzenedimethanamine;
- (ii) AMD8819, N,N'-bis(2-pyridinylmethyl)-N'-(1,2,3,4-tetrahydro-1-naphthalenyl)-1,4-benzenedimethanamine;
- (jj) AMD8768, N,N'-bis(2-pyridinylmethyl)-N'-[(5,6,7,8-tetrahydro-8-quinolinyl)methyl]-1,4-benzenedimethanamine;
- (kk) AMD8767, N,N'-bis(2-pyridinylmethyl)-N'[(6,7-dihydro-5H-cyclopenta[bacteriapyridin-7-yl])methyl]-1,4-benzenedimethanamine;
- (ll) AMD8838, N-(2-pyridinylmethyl)-N-(2-methoxyethyl)-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (mm) AMD8871, N-(2-pyridinylmethyl)-N-[2-(4-methoxyphenyl)ethyl]-N'-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (nn) AMD8844, N,N'-bis(2-pyridinylmethyl)-1,4-(5,6,7,8-tetrahydro-8-quinolinyl)benzenedimethanamine;
- (oo) AMD7129, N-[(2,3-dimethoxyphenyl)methyl]-N'-(2-pyridinylmethyl)-N-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
- (pp) AMD7130, N,N'-bis(2-pyridinylmethyl)-N-[1-(N'-phenyl-N''-methylureido)-4-piperidinyl]-1,3-benzenedimethanamine;
- (qq) AMD7131, N,N'-bis(2-pyridinylmethyl)-N-[N''-p-toluenesulfonylphenylalanyl]-4-piperidinyl]-1,3-benzenedimethanamine;
- (rr) AMD7136, N,N'-bis(2-pyridinylmethyl)-N-[1-[3-(2-chlorophenyl)-5-methylisoxazol-4-oyl]-4-piperidinyl]-1,3-benzenedimethanamine,

- (ss) AMD7138, N-[(2-hydroxyphenyl)methyl]-N'-(2-pyridinylmethyl)-N-(6,7,8,9-tetrahydro-5H-cyclohepta[bacteriapyridin-9-yl])-1,4-benzenedimethanamine;
 (tt) AMD7140, N-[(4-cyanophenyl)methyl]-N'-(2-pyridinylmethyl)-N-(6,7,8,9-tetrahydro-5H-cyclohepta[bacteriapyridin-9-yl])-1,4-benzenedimethanamine;
 (uu) AMD7141, N-[(4-cyanophenyl)methyl]-N'-(2-pyridinylmethyl)-N-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
 (vv) AMD7142, N-[(4-acetamidophenyl)methyl]-N'-(2-pyridinylmethyl)-N-(5,6,7,8-tetrahydro-8-quinolinyl)-1,4-benzenedimethanamine;
 (ww) AMD7145, N-[(4-phenoxyphenyl)methyl]-N'-(2-pyridinylmethyl)-N-(6,7,8,9-tetrahydro-5H-cyclohepta[bacteriapyridin-9-yl])-1,4-benzenedimethanamine;
 (xx) AMD7147, N-[(1-methyl-2-carboxamido)ethyl]-N,N'-bis(2-pyridinylmethyl)-1,3-benzenedimethanamine;
 (yy) AMD7151, N-[(4-benzyloxyphenyl)methyl]-N'-(2-pyridinylmethyl)-N-(6,7,8,9-tetrahydro-5H-cyclohepta[bacteriapyridin-9-yl])-1,4-benzenedimethanamine; and
 (zz) AMD7155, N-[(thiophene-2-yl)methyl]-N'-(2-pyridinylmethyl)-N-(6,7,8,9-tetrahydro-5H-cyclohepta[bacteriapyridin-9-yl])-1,4-benzenedimethanamine

102. A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 1 in admixture with at least one pharmaceutically acceptable excipient.

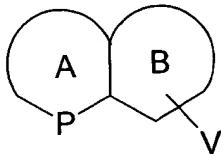
119. (Amended) A compound of the formula



wherein, W is a nitrogen atom and Y is void;

R¹ to R⁷ may be the same or different and are independently hydrogen or straight, branched or cyclic C₁₋₆ alkyl;

~~R⁸ is an optionally substituted heterocyclic group or an optionally substituted aromatic group
Ar is an aromatic or heteroaromatic ring optionally substituted at single or multiple, non-linking positions with electron-donating or withdrawing groups;
n and n' are independently, 0-2;
X is a group of the formula:~~



Sch F
~~wherein, Ring A is an optionally substituted, saturated or unsaturated 5 or 6-membered ring, and P is an optionally substituted nitrogen atom and wherein any heteroatom in ring A or B is N;~~

~~wherein Ring B is an optionally substituted 5 to 7-membered ring;
wherein Ring A or Ring B is bound to group W from any position through group V;
wherein V is a chemical bond or V is a $(CH_2)_n$ group (where n''= 1-2), or V is a C=O group; and~~

~~wherein Z is selected from the group consisting of: a hydrogen atom; an optionally substituted C₁₋₆ alkyl group; an optionally substituted aromatic or heterocyclic group; a C₁₋₆ alkyl group substituted with an optionally substituted aromatic or heterocyclic group; an optionally substituted amino group; an optionally substituted C₁₋₆ alkylamino or C₃₋₇ cycloalkylamino group; a sulfonyl group and an optionally substituted carbonyl group; or the pharmaceutically acceptable acid addition salts thereof;~~

Sch F
~~including said compound in any stereoisomeric form and any mixture of stereoisomeric forms thereof.~~

14
120. The compound of claim 119, wherein Ring A is selected from the group consisting of: pyridine; pyrimidine; pyrazine; pyridazine; triazine; piperidine; piperazine; imidazole; pyrazole; and triazole and the optionally substituted forms thereof.

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121. The compound of claim 119, wherein Ring B is selected from the group consisting of: benzene and a 5 to 7-membered cycloalkyl ring; and the optionally substituted forms thereof.

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122. The compound of claim 119, wherein Ring B is selected from the group consisting of: cyclopentyl; cyclohexyl; cycloheptyl; cyclopentenyl; cyclohexenyl; and cycloheptenyl and the optionally substituted forms thereof.

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123. The compound of claim 119, wherein Ring A and Ring B together are optionally substituted dihydroquinoline or tetrahydroquinoline.

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124. The compound of claim 119, wherein Ring A and Ring B are independently optionally substituted with a substituent selected from the group consisting of: halogen; nitro; cyano; carboxylic acid; an optionally substituted alkyl, alkenyl or cycloalkyl group; an optionally substituted hydroxyl group; an optionally substituted thiol group; an optionally substituted amino or acyl group; an optionally substituted carboxylate, carboxamide or sulfonamide group; and an optionally substituted aromatic or heterocyclic group.

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125. (Amended) The compound of claim 119 wherein said optional substituent in Ring A or Ring B is independently an optionally substituted aralkyl or heterocycloalkyl, wherein said heterocycloalkyl is a 5 or 6 membered ring containing 1-4 heteroatoms.

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126. The compound of claim 125, wherein said optionally substituted aralkyl or heterocycloalkyl is selected from the group consisting of: phenylC₁₋₄alkyl; phenylmethyl (benzyl); phenethyl; pyridinylmethyl; and pyridinylethyl.

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127. The compound of claim 119, wherein Z is an optionally substituted C₁₋₆alkyl group, wherein said C₁₋₆alkyl group is substituted with one or more substituents selected from the group consisting of: halogen; nitro; cyano; carboxylic acid; an optionally substituted alkyl, alkenyl or cycloalkyl group; an optionally substituted hydroxyl group; an optionally substituted thiol group; an optionally substituted amino or acyl group; an optionally substituted carboxylate, carboxamide or sulfonamide group; and an optionally substituted aromatic or heterocyclic group.

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28 128. The compound of claim 119, wherein Z is an optionally substituted aromatic or heterocyclic group or a C₁₋₆-alkyl group optionally substituted with an optionally substituted aromatic or heterocyclic group.

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29 129. (Amended) The compound of claim 128, wherein said optionally substituted aromatic group is substituted with a substituent selected from the group consisting of: benzene; naphthalene; dihydronaphthalene; and tetrahydronaphthalene; and wherein said optionally substituted heterocyclic group is a 5 to 6-membered saturated, partially saturated, or aromatic heterocyclic ring containing 1 to 4 heteroatoms selected from nitrogen, oxygen and sulfur.

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F1

29 130. The compound of claim 129, wherein said heterocyclic group is selected from the group consisting of: pyridine, quinoline, isoquinoline, imidazole, benzimidazole, azabenzimidazole, benzotriazole, furan, benzofuran, thiazole, benzothiazole, oxazole, benzoxazole, pyrrole, indole, indoline, indazole, pyrrolidine, pyrrolidone, pyrroline, piperidine, piperazine, tetrahydroquinoline, tetrahydroisoquinoline, pyrazole, thiophene, isoxazole, isothiazole, triazole, tetrazole, oxadiazole, thiadiazole, morpholine, thiamorpholine, pyrazolidine, imidazolidine, imidazoline, tetrahydropyran, dihydropyran, benzopyran, dioxane, dithiane, tetrahydrofuran, tetrahydrothiophene, dihydrofuran, and dihydrothiophene.

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29 131. (Amended) The compound of claim 130, wherein said heterocyclic group contains nitrogen or sulfur heteroatoms; and wherein said nitrogen or sulfur heteroatoms are optionally in the form of oxides.

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28 132. A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 119 in admixture with at least one pharmaceutically acceptable excipient.